UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,380	05/19/2005	Serge Fdida	18730-003US1 FR03/03473 U	7092

26161 7590 03/05/2008

FISH & RICHARDSON PC
P.O. BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER	
TURNER, ASHLEY D	

ART UNIT	PAPER NUMBER
2154	

MAIL DATE	DELIVERY MODE
03/05/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/535,380	FDIDA ET AL.	
	Examiner	Art Unit	
	ASHLEY D. TURNER	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/14/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1-10 are rejected under 35 U.S.C. 102 (b) as being anticipated by Baker et al hereinafter Baker (U.S. 5,793,954).

Referring to claim 1 Baker discloses a method for triggering by means of a digital processing device (1,2) , at least one action on digital communication data when they belong to one and the same semantic flow for which said action is designed, comprises: feeding the device with at least one filter having three possible states which result from one or more conditions on one or more protocol attributes specified for said semantic flow, a valid state corresponding to protocol attribute values which confirm that said condition or conditions are satisfied (Col. 1 lines 20-25 Conventional network protocol analyzers provide, for a predefined set of network frame structures or protocols, a system for monitoring the activity of a network and the stations on it by allowing network traffic to be captured and stored for later analysis. Common capture and analysis capabilities include the gathering of statistics, subsequent report generation, the ability to filter frames based on specific criteria, and the ability to generate network traffic.), an invalid state corresponding to protocol

attribute values which confirm that said condition or conditions are not satisfied, an uncertain state corresponding are or are not satisfied, each protocol attribute being specified by an ordered sequence of protocol names used in the semantic flow and by a parameter name conveyed by a protocol whose name is indicated in said ordered sequence of protocol names (Col. 16 lines If a lookup structure exists for a particular field but the extracted value is not found therein (at 314 and 316), parsing still continues with the next defined field of the current protocol. However, the value is considered invalid. Values or ranges of values found in configured lookup structures are considered to be valid. The Prot and NextIndex values associated with a value or range found are used to specify NextProtocol, the protocol description (at 308) to be used after current protocol header parsing is completed, and the index of the next field (at 310) is used to determine where parsing of the current protocol will continue after the current field. The first valid field parsed in a protocol that specifies the NextProtocol has precedence over all subsequent NextProtocol specifiers (at 306). The ValidateValue control logic returns an updated CurField value (at 312 and 316) together with a valid/invalid indication, and where indicated (at 308) may return an updated value for NextProtocol. Using value 0.times.8888 as an example, if the ValidateValue control logic is applied to the Ethernet Type field and associated lookup structure shown in FIGS. 4a and 4d respectively, the lookup structure would be found (at 302), the value will be found in it (at 304), the associated Protocol field found with the range containing 0.times.8888 value will be used to update the NextProtocol variable (at 308) if it is NULL (at 306), and the associated Next Index field will be used to update the CurField variable). ; applying the three-state filter to said communication data as long as these data have not afforded protocol attribute values other that those from which said uncertain state of the filter results; and

triggering said when said valid state of the filter results from protocol attribute values afforded by the communication data (Col 1. lines 45-65 A frame filter consists of one or more criteria which specify one or more valid values for a frame (or segments of a frame). Frame filtering criteria are typically implemented using an offset (from frame or protocol header start), a length in bits which defines a field, a value for comparison, and mask values for identifying relevant and irrelevant bits within the field. For multiple value filter criteria, the result from each filter value is logically OR'ed together to obtain an overall result. Therefore, each additional result adds to the processing required to filter a given field. For filtering on optional protocol fields that do not occur at the same relative offset in each protocol frame, this method is time-consuming. Thus, it would be desirable to perform filtering on both fixed and optional variable offset fields for any number of values or ranges of values without incurring any additional overhead).

Referring to claim 2 Baker discloses all the limitations of claim 2 which is described above. Baker also discloses to apply the filter to said communication data, the method further comprises: dispatching one of said protocol attributes to a protocol interface allocated to the protocol indicated in the ordered sequence of protocol names, until the state of the filter is valid or invalid or until all the protocol attributes have been dispatched; searching through the communication data for value of the specified parameter and transmitting this value to the digital processing device if it finds the former; and evaluating the state of the filter which corresponds to the value or the absence of value transmitted by the protocol interface. (Col. 16 lines 33-58 The

ValidateValue control logic shown in FIG. 14 is performed on each extracted field value by the ParseFields control logic (at 214) shown in FIG. 13. Each field may have an associated lookup structure reference containing one or more values and/or ranges of values that have a particular meaning for that field. If no lookup structure is configured for a particular field, all values are deemed to be valid (at 318 and 312), which causes parsing to continue with the next sequentially defined field of the current protocol description. If a lookup structure exists for a particular field but the extracted value is not found therein (at 314 and 316), parsing still continues with the next defined field of the current protocol. However, the value is considered invalid. Values or ranges of values found in configured lookup structures are considered to be valid. The Prot and NextIndex values associated with a value or range found are used to specify NextProtocol, the protocol description (at 308) to be used after current protocol header parsing is completed, and the index of the next field (at 310) is used to determine where parsing of the current protocol will continue after the current field. The first valid field parsed in a protocol that specifies the NextProtocol has precedence over all subsequent NextProtocol specifiers (at 306). The ValidateValue control logic returns an updated CurField value (at 312 and 316) together with a valid/invalid indication, and where indicated (at 308) may return an updated value for NextProtocol.)

Referring to claim 3 Baker discloses all the limitations of claim 3 which is described above Baker also discloses wherein each filter for feeding said digital processing device is defined by a logical combination of rules in a first table [[(64]], each rule being defined

in a second table [[(65)]] by verification expression comprising at least one comparison operator, an argument of which is the protocol attribute. (Col. 17 lines 6-20 Referring back to the ParseFields control logic shown in FIG. 13, the ParseFields control logic parses the fields in each protocol header contained in a particular network frame by using field values obtained in accordance with information specified in associated protocol descriptions. The ParseFields control logic is applied for each protocol description required for a particular network frame. If the ParseFields control logic were applied to the exemplary frame, "Frame (1)," described above, the network interface system 10 of the present invention would apply the ParseFields control logic with the protocol descriptions for the Ethernet protocol shown in Table 12, the GP shown in Table 13, and an unspecified Data protocol description.)

Referring to claim 4 Baker discloses all the limitations of claim 4 which is described above. Baker also discloses wherein to evaluate the state of the filter which corresponds to the value or to the absence of value transmitted by the protocol interface, the digital processing device evaluates the state of at least one rule in the logical combination as a function of the transmission of value and then the state given by the logical combination applied to the evaluated states of rules. (Col. 17 lines 63-67 - Col.8 lines1-21) If Index is less than NextCriteriaIndex (at 402) it indicates that this filter criteria does not need to be evaluated. This may occur because a filter channel has been satisfied and NextCriteriaIndex has been set to TotalCriteria to disable further filter processing. If Index is greater than NextCriteriaIndex (at 404) this indicates that a filter criteria was skipped in the

evaluation of this filter channel which invalidates the filter result. In this case, further filter evaluation is disabled (at 414) by setting NextCriteriaIndex to TotalCriteria and ApplyFilter returns to the caller. If Index and NextCriteriaIndex are equal, the field value is found (at 406) in the associated lookup table, NextCriteriaIndex is updated with the associated NextIndex value and if the associated return value status is PASS.sub.-- FRAME, the System Filter Status is updated to PASS.sub.-- FRAME. In this preferred embodiment, the range of possible values for a field must be fully covered. Similarly, in the preferred embodiment a frame will be completely parsed for statistics gathering. Criteria (0) cannot be used to determine a PASS/FILTER.sub.-- FRAME result for the filter expression above because it must be logically AND'ed with criteria (1). This is illustrated in FIG. 10b, where every value results in no change to the status. The logical AND with criteria (1) is implemented using the NextIndex value. If criteria (0) is FALSE then NextIndex is 2 which causes criteria (1) to be skipped, otherwise NextIndex is 1.)

Referring to claim 6 Baker discloses a computer system for triggering at least one action on digital communication data when they belong to one and the same semantic flow for which said action is designed, a digital processing device a filtering engine [[1]] and [[of]] an actions engine [[2]]; a database [[6]] for feeding the filtering engine [[1]] with at least one filter having three possible states which result from one or more conditions on one or more protocol attributes specified for said semantic flow [[,]]; [[-]] at least one data structure for cataloguing a valid state corresponding to protocol attribute values which confirm that said condition or conditions are satisfied(Col. 1 lines 20-25 Conventional network protocol analyzers provide, for a predefined set of network frame structures or

protocols, a system for monitoring the activity of a network and the stations on it by allowing network traffic to be captured and stored for later analysis. Common capture and analysis capabilities include the gathering of statistics, subsequent report generation, the ability to filter frames based on specific criteria, and the ability to generate network traffic.) , an invalid state corresponding to protocol attribute values which confirm that said condition or conditions are not satisfied, an uncertain state corresponding are or are not satisfied, each protocol attribute being specified by an ordered sequence of protocol names used in the semantic flow and by a parameter name conveyed by a protocol whose name is indicated in said ordered sequence of protocol names (Col. 16 lines If a lookup structure exists for a particular field but the extracted value is not found therein (at 314 and 316), parsing still continues with the next defined field of the current protocol. However, the value is considered invalid. Values or ranges of values found in configured lookup structures are considered to be valid. The Prot and NextIndex values associated with a value or range found are used to specify NextProtocol, the protocol description (at 308) to be used after current protocol header parsing is completed, and the index of the next field (at 310) is used to determine where parsing of the current protocol will continue after the current field. The first valid field parsed in a protocol that specifies the NextProtocol has precedence over all subsequent NextProtocol specifiers (at 306). The ValidateValue control logic returns an updated CurField value (at 312 and 316) together with a valid/invalid indication, and where indicated (at 308) may return an updated value for NextProtocol. Using value 0.times.8888 as an example, if the ValidateValue control logic is applied to the Ethernet Type field and associated lookup structure shown in FIGS. 4a and 4d respectively, the lookup structure would be found (at 302), the value will be found in it (at 304), the associated Protocol field found

with the range containing 0.times.8888 value will be used to update the NextProtocol variable (at 308) if it is NULL (at 306), and the associated Next Index field will be used to update the CurField variable)., an invalid state corresponding to protocol attribute values which confirm that said condition or conditions are or not satisfied, each protocol attribute being specified by an ordered sequence of protocol names used in the semantic flow and by a parameter name conveyed by a protocol whose name is indicated in said ordered sequence of protocol names; [[-]] means [[100]] for receiving communication data as long as these data have not afforded any protocol attribute value other than those from which said uncertain state of the filter results; and [[-]] means of transmission [[117]] of communication data useable by the action engine [[2]] to trigger said action when said valid state is contained in the data structure [50 , 52,52] (Col. 17 lines 63-67 - Col.8 lines1-21) If Index is less than NextCriteriaIndex (at 402) it indicates that this filter criteria does not need to be evaluated. This may occur because a filter channel has been satisfied and NextCriteriaIndex has been set to TotalCriteria to disable further filter processing. If Index is greater than NextCriteriaIndex (at 404) this indicates that a filter criteria was skipped in the evaluation of this filter channel which invalidates the filter result. In this case, further filter evaluation is disabled (at 414) by setting NextCriteriaIndex to TotalCriteria and ApplyFilter returns to the caller. If Index and NextCriteriaIndex are equal, the field value is found (at 406) in the associated lookup table, NextCriteriaIndex is updated with the associated NextIndex value and if the associated return value status is PASS.sub.-- FRAME, the System Filter Status is updated to PASS.sub.-- FRAME. In this preferred embodiment, the range of possible values for a field must be fully covered. Similarly, in the preferred embodiment a frame will be completely

parsed for statistics gathering. Criteria (0) cannot be used to determine a PASS/FILTER.sub.--FRAME result for the filter expression above because it must be logically AND'ed with criteria (1). This is illustrated in FIG. 10b, where every value results in no change to the status. The logical AND with criteria (1) is implemented using the NextIndex value. If criteria (0) is FALSE then NextIndex is 2 which causes criteria (1) to be skipped, otherwise NextIndex is 1.)

Referring to claim 7 Baker discloses all the limitations of claim 7 which is described above. Baker also discloses wherein the system comprises a protocol interface allocated to each useable protocol in the semantic flow, and configured to receive from the filtering engine [[1]], the protocol attributes defined for the protocol to which the protocol interface is allocated; [[-]] the protocol interface [(40,41,42,23)] being configured so as to search through the communication data for the value of the specified parameter and to transmit this value to the filtering engine [[(1)]] being configured so as to evaluate the state of the filter which corresponds to the value or to the absence of value or the absence of value transmitted by the protocol interface. (Col. 17 lines 63-67 -Col.8 lines1-21) If Index is less than NextCriteriaIndex (at 402) it indicates that this filter criteria does not need to be evaluated. This may occur because a filter channel has been satisfied and NextCriteriaIndex has been set to TotalCriteria to disable further filter processing. If Index is greater than NextCriteriaIndex (at 404) this indicates that a filter criteria was skipped in the evaluation of this filter channel which invalidates the filter result. In this case, further filter evaluation is disabled (at 414) by setting NextCriteriaIndex to TotalCriteria and ApplyFilter returns to the caller. If Index and NextCriteriaIndex are equal, the field value is found (at 406) in

the associated lookup table, NextCriteriaIndex is updated with the associated NextIndex value and if the associated return value status is PASS.sub.-- FRAME, the System Filter Status is updated to PASS.sub.-- FRAME. In this preferred embodiment, the range of possible values for a field must be fully covered. Similarly, in the preferred embodiment a frame will be completely parsed for statistics gathering. Criteria (0) cannot be used to determine a PASS/FILTER.sub.-- FRAME result for the filter expression above because it must be logically AND'ed with criteria (1). This is illustrated in FIG. 10b, where every value results in no change to the status. The logical AND with criteria (1) is implemented using the NextIndex value. If criteria (0) is FALSE then NextIndex is 2 which causes criteria (1) to be skipped, otherwise NextIndex is 1.)

Referring to claim 8 Baker discloses all the limitations of claim 8 which is described above. Baker also discloses wherein the database [[(6)]] comprises a first table [[(64)]] which contains a logical combination of rules for each filter, and a second table [[(65)]] which contains for each rule, a verification expression comprising at least one comparison operator, an argument of which is the protocol attribute. (Col. 17 lines 6-20 Referring back to the ParseFields control logic shown in FIG. 13, the ParseFields control logic parses the fields in each protocol header contained in a particular network frame by using field values obtained in accordance with information specified in associated protocol descriptions. The ParseFields control logic is applied for each protocol description required for a particular network frame. If the ParseFields control logic were applied to the exemplary frame, "Frame (1)," described above, the network interface system 10 of the present invention would apply the

ParseFields control logic with the protocol descriptions for the Ethernet protocol shown in Table 12, the GP shown in Table 13, and an unspecified Data protocol description.)

Referring to claim 9 Baker discloses all the limitations of claim 9 which is described above. Baker also wherein to evaluate the state of the filter which corresponds to the value or to the absence of value transmitted by the protocol interface, the digital processing device is devised so as to evaluate the state of at least one rule on the logical combination as a function of the transmission of value and then the state given by the logical combination applied to the evaluated states of rules. (Col. 17 lines 63-67 - Col.8 lines1-21) If Index is less than NextCriteriaIndex (at 402) it indicates that this filter criteria does not need to be evaluated. This may occur because a filter channel has been satisfied and NextCriteriaIndex has been set to TotalCriteria to disable further filter processing. If Index is greater than NextCriteriaIndex (at 404) this indicates that a filter criteria was skipped in the evaluation of this filter channel which invalidates the filter result. In this case, further filter evaluation is disabled (at 414) by setting NextCriteriaIndex to TotalCriteria and ApplyFilter returns to the caller. If Index and NextCriteriaIndex are equal, the field value is found (at 406) in the associated lookup table, NextCriteriaIndex is updated with the associated NextIndex value and if the associated return value status is PASS.sub.-- FRAME, the System Filter Status is updated to PASS.sub.-- FRAME. In this preferred embodiment, the range of possible values for a field must be fully covered. Similarly, in the preferred embodiment a frame will be completely parsed for statistics gathering. Criteria (0) cannot be used to determine a PASS/FILTER.sub.-- FRAME result for the filter expression above because it must be logically AND'ed with criteria

(1). This is illustrated in FIG. 10b, where every value results in no change to the status. The logical AND with criteria (1) is implemented using the NextIndex value. If criteria (0) is FALSE then NextIndex is 2 which causes criteria (1) to be skipped, otherwise NextIndex is 1.)

Referring to claim 10 Baker discloses all the limitations of claim 10 which is described above. Baker also discloses wherein the database [[(6)]] comprises at least a third table containing several names of actions each designed for a different semantic flow with which a specific filter is associated. (Col.2 lines 21-29 Finally, as networks become larger and more complex, the maintenance of a comprehensive statistics database by each network device becomes more important. Because these statistics databases typically are not utilized by a maintaining device, but instead are collected by a network management device, the collection process may affect performance adversely without any corresponding benefit to the collecting device.) (Col. 17 lines 63-67 -Col.8 lines1-21) If Index is less than NextCriteriaIndex (at 402) it indicates that this filter criteria does not need to be evaluated. This may occur because a filter channel has been satisfied and NextCriteriaIndex has been set to TotalCriteria to disable further filter processing. If Index is greater than NextCriteriaIndex (at 404) this indicates that a filter criteria was skipped in the evaluation of this filter channel which invalidates the filter result. In this case, further filter evaluation is disabled (at 414) by setting NextCriteriaIndex to TotalCriteria and ApplyFilter returns to the caller. If Index and NextCriteriaIndex are equal, the field value is found (at 406) in the associated lookup table, NextCriteriaIndex is updated with the associated NextIndex value and if the associated return value status is PASS.sub.-- FRAME, the System Filter Status is updated to PASS.sub.-- FRAME. In this preferred embodiment, the range

of possible values for a field must be fully covered. Similarly, in the preferred embodiment a frame will be completely parsed for statistics gathering. Criteria (0) cannot be used to determine a PASS/FILTER.sub.-- FRAME result for the filter expression above because it must be logically AND'ed with criteria (1). This is illustrated in FIG. 10b, where every value results in no change to the status. The logical AND with criteria (1) is implemented using the NextIndex value. If criteria (0) is FALSE then NextIndex is 2 which causes criteria (1) to be skipped, otherwise NextIndex is 1.)

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Baker (U.S. 5,793,954) in view of Kloth (WO 01/22686 A1).

Referring to claim 5 Baker discloses all the limitations of claim 5 which is described above. Baker did not discloses wherein the method further comprises a step [[103]] in which the digital communication data are scanned so as to detect any change of value of a protocol attribute so as to make it possible to evaluate a change of state of the filter which corresponds to the change of value. The general concept of wherein the method further comprises a step [[103]] in which the digital communication data are scanned so

as to detect any change of value of a protocol attribute so as to make it possible to evaluate a change of state of the filter which corresponds to the change of value is well known in the art as taught by Kloth. Kloth discloses wherein the method further comprises a step [[103]] in which the digital communication data are scanned so as to detect any change of value of a protocol attribute so as to make it possible to evaluate a change of state of the filter which corresponds to the change of value. (Pg. 6 lines 10-30 A set &rules are used to define a pattern (or set of patterns) to be analyzed (or compared/ attached) in the incoming IP data flow. The rules can be edited or developed via an appropriate graphical interface. The rules can be applied on-the-fly (e.g. real-time or online, etc.) via a just-in-time (JIT) compiler, or the like. The rules might also be imposed at runtime without the use ofa JIT compiler. The pattern can be located anywhere within the IP flow, e.g. IP packet headers or packet data. Upon detection of a certain pattern, actions can be performed upon the IP flow and/or individual IP packets. Such actions can include routing decisions, wherein the packet is mapped to a certain routing capability. Such traffic policing capabilities can include Unspecified Bit Rate (UBR), Variable Bit Rate (VBR), Constant Bit Rate (CBR) or their equivalents. The packet can also be buffered for sending later, and/or for evening out traffic loads between various points (or nodes) in a network. In yet another aspect, the routing assignments are mapped onto existing Quality of Service (QoS) and/or Class of Service (COS) capabilities. In still another aspect, the data flow is altered or modified as a result of a detected pattern, which is a function of an associated rule. The detected pattern can be altered or modified. Alternatively, the [P packet itself can be altered or modified. This would include changing (or exchanging) destination addresses, or the like, for data packets.In still another aspect, the data flow (or packets) might be

dropped intermittently, or discarded altogether, as a result of a detected data pattern. For instance, all data packets associated with a certain virus pattern might be dropped or discarded). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Baker to include wherein the method further comprises a step [[103]] in which the digital communication data are scanned so as to detect any change of value of a protocol attribute so as to make it possible to evaluate a change of state of the filter which corresponds to the change of value in order to provide a router –based switching system that is processor –based and provides a fully flexible state machine for routing data packets.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashley d. Turner whose telephone number is 571-270-1603. The examiner can normally be reached on Monday thru Friday 7:30a.m. - 5:00p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached at 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-270-2603.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patent Examiner:

Ashley Turner

Date: 2/28/08

Supervisory Patent Examiner

Date:

NATHAN FLYNN
SUPERVISORY PATENT EXAMINER